

Multisensory processing in full-body illusions

Citation for published version (APA):

Maselli, A. (2019). *Multisensory processing in full-body illusions*. [Doctoral Thesis, Maastricht University]. Maastricht University. <https://doi.org/10.26481/dis.20190501am>

Document status and date:

Published: 01/01/2019

DOI:

[10.26481/dis.20190501am](https://doi.org/10.26481/dis.20190501am)

Document Version:

Publisher's PDF, also known as Version of record

Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

[Link to publication](#)

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license above, please follow below link for the End User Agreement:

www.umlib.nl/taverne-license

Take down policy

If you believe that this document breaches copyright please contact us at:

repository@maastrichtuniversity.nl

providing details and we will investigate your claim.

Propositions accompanying the dissertation
MULTISENSORY PROCESSING IN FULL-BODY ILLUSIONS
Antonella Maselli

1. Our own-bodies are unique objects of perception, in at least two respects. First, sensations from our bodies cannot be switched off at will. Second, the multisensory dimension of the own-body percept exceeds by far other forms of perceptual experiences.
2. Experimentally induced bodily illusions are powerful tools to study the otherwise elusive neural and cognitive mechanisms underlying self-body perception and corporeal awareness.
3. While intrinsically interlaced in the healthy perception of our physical bodies, the sense of *body ownership* and the sense of *self-location* can be dissociated during full body illusions, similarly to what happens in transient out-of-body experiences of neurological origin.
4. Once established, body ownership illusions have the power of relaxing spatial and temporal constraints for multisensory integration of bodily stimuli.
5. The illusion of owning a body that is different from one's own – in terms of age, race, sex and other semantic attributes – can have profound attitudinal and cognitive implications with great potential for therapy and rehabilitation.
6. *“The key to understanding perception is appreciating the distinction between it and reality. We do not perceive the world as it is. The brain constructs a simulated world for us, a fake world, a world of enhanced borders and contrasts, a colorized world, a world populated by invented attributes. We experience a banquet of need-to-know information”* – **Michael Graziano**
7. We know that there exist in the brain specialized areas for the perception of human bodies. The same does not hold for the own-body percept. Current evidence points to a shared distributed processing from which a dynamic and flexible representation emerges.
8. The ability to make predictions is key to a smooth interaction with the environment, as actions need to be planned in advance for compensating the intrinsic latencies of our nervous system. Our brains need therefore to adaptively model the behaviour of inanimate objects and living creatures.
9. *“Reality is merely an illusion, albeit a very persistent one”* – **Albert Einstein**
10. *“We can judge our progress by the courage of our questions and the depth of our answers, our willingness to embrace what is true rather than what feels good”* – **Carl Sagan**
11. *“Real learning comes about when the competitive spirit has ceased”* – **Jiddu Krishnamurti**